CROWN CHARGES FOR EARLY TIMBER RIGHTS

Royalties and Other Levies
for Harvesting Rights on
Timber Leases, Licences and Berths
in British Columbia

FIRST REPORT OF THE TASK FORCE
ON CROWN TIMBER DISPOSAL
FEBRUARY 1974

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Copies of this document are available without charge from the Information Division of the British Columbia Forest Service, Victoria, B.C.

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Abbreviations

The following abbreviations are used throughout this report:

OLD TEMPORARY TENURES — Collectively, Timber Leases, Timber Licences, Pulp Leases, Pulp Licences and Timber Berths

FULTON REPORT — *Final Report of the Royal Commission of Inquiry on Timber and Forestry, 1909-1910*, King's Printer, Victoria, 1910

SLOAN REPORT 1945 — *Report of the Commissioner Relating to the Forest Resources of British Columbia, 1945*, King's Printer, Victoria, 1945

SLOAN REPORT 1956 — *Report of the Commissioner Relating to the Forest Resources of British Columbia, 1956*, Queen's Printer, Victoria, 1957 (2 volumes)

FOREST ACT — Forest Act, R.S.B.C. 1960 c.153 as amended

LOGGING TAX ACT — *Logging Tax Act*, R.S.B.C. 1960 c.225 as amended

TAXATION ACT — *Taxation Act*, R.S.B.C. 1960 c.376 as amended

CUNIT — A measure of wood volume: 100 cubic feet

Mfbm — A measure of lumber recoverable from logs: thousand foot board measure

PREFACE

The Task Force on Crown Timber Disposal was struck on January 12th, 1974 to investigate and make recommendations pertaining to a variety of general issues of public forest policy in British Columbia as specified in its Terms of Reference (see Appendix A). In addition to other matters which it is to investigate in the coming months, the Task Force was specifically charged "... to submit an interim report on or before February 28th, 1974 with recommendations for improvements in the arrangements governing the Crown charges for timber and harvesting rights on Timber Leases, Timber Licences, Pulp Leases, Pulp Licences and Timber Berths". This report fulfills that specific charge.

Few commissions of inquiry have been asked to report in so short a time. Obviously the Task Force has had to work swiftly on its first assignment — to investigate the issue, to consider alternative courses of possible action, to formulate its recommendations and to compile this report; in addition to establishing itself and its *modus operandi*. Fortunately, the investigation was facilitated in several important ways. First, the Task Force itself consisted of three members who were already familiar with the issue to be investigated, namely the leases, licences and berths that comprise what are hereinafter referred to as the old temporary tenures. They are all Registered Professional Foresters with long experience in the Province and together are able to contribute from their special acquaintance with forest industry, government administration of forest policy and natural resource economics. Second, the objectives toward which the Task Force is to direct its recommendations are clearly specified in its Terms of Reference, and so (unlike, for example, the three Royal Commissions which have investigated forest policy in the Province in earlier years) the members were not compelled to debate at length the broad goals of public policy

on which their recommendations should be based. Third, the Task Force benefitted from a good deal of background work and statistical analysis prepared by the Forest Service during 1973, in particular a substantial amount of data compilation and analysis that had been done under the supervision of Mr. J. A. K. Reid of the British Columbia Forest Service in Victoria. Indeed, the Task Force enjoyed the assistance of the Forest Service throughout our inquiry and it is due in large part to the co-operative response of Mr. Reid and his colleagues to the extra demands the Task Force put on them that this report is submitted within its short deadline and contains recommendations in which we have unanimous and complete confidence.

The Task Force also had expert legal and analytical consultants who worked diligently to assist us in our investigations. We have benefitted, also, from many written briefs prepared for us by interested parties and from our discussions with them.

In drafting this report we have attempted to cast the issues and our recommendations in their historical perspective. Over the decades, successive governments have frequently altered the terms and conditions governing the old temporary tenures in response to changing economic and other conditions. The Task Force did not feel compelled to bind its recommendations to the policies of the past, for that might have proven incompatible with the public interest today and with our Terms of Reference. But we have found it instructive to view the question of royalties, especially, in the context of the evolution of public forest policy; and interesting to reveal our recommendations as a logical next step in the pursuit of objectives that have been remarkably consistent through time. The history of the old temporary tenures reveals, among other things, two features that are relevant to this enquiry: first, there has been a general understanding on the part of both the industry and the government throughout this century that the public is to receive a share of the value of Crown forest resources; and second, in pursuit of this goal governments have maintained a high degree of flexibility in policies affecting timber alienation.

This report reviews the status of old temporary tenures over timber resources in British Columbia and, as our Terms of Reference instruct, makes recommendations for improvements in the arrangements governing Crown charges for the rights to harvest public timber provided under these tenures. But the Task Force is

also charged to investigate broader issues of forest policy. Accordingly, we have been cautious in formulating our recommendations so that their implementation will not foreclose or impede more basic reforms in the arrangements affecting tenures and Crown charges that might be recommended later. We are satisfied that the recommendations herein leave the desired scope for future changes without compromising the objectives sought in dealing with the immediate problem.

THE ISSUE

In 1865, the government of the Crown Colony of Vancouver Island issued a *Land Ordinance* which initiated a policy that was to become general in British Columbia — namely the retention of Crown ownership of land and resources while exploitation rights were granted to private parties. It is worth noting that this first step was taken one year before Vancouver Island was joined to the mainland of British Columbia, and six years before British Columbia joined the Dominion of Canada in 1871.

Between 1865 and 1907, rights to harvest Crown timber were provided under a variety of arrangements which were known as, or later became, Timber Leases, Pulp Leases, Timber Licences and Pulp Licences. Timber Berths are harvesting rights granted by the federal government on land conveyed to the Dominion in aid of construction of the trans-continental railway. These lands were for the most part conveyed back to the Province in 1930, and the surviving berths are now administered under arrangements roughly similar to those governing the other old temporary tenures.

Each category of tenure carried its own terms and conditions and these were changed considerably by statute and Order-in-Council through time. Some understanding of the history of these tenures is essential to an adequate appreciation of their present status and the evolution of public forest policy, and so a brief historical review appears as Appendix B to this report.

By 1907, when the granting of new timber rights was suspended, some 11.4 million acres of timberland were held in temporary tenures. (A good deal more had been alienated by Crown Grant, but this private property is not directly relevant to this enquiry.) By far the largest proportion of the total acreage of temporary harvesting rights consisted of timber licences, taken up during a feverish speculative boom in timber "staking" during the three years

preceding the suspension. Before and after 1907 many of these tenures reverted to the Crown following removal of the virgin timber, as was intended. Many more reverted by default with the timber intact, when the prospects for the forest industry appeared less auspicious or when licences recklessly staked out were found to be less valuable than supposed. The accompanying figure shows how the total acreage held has declined since the peak in 1907. Today, the total acreage outstanding is less than one-sixth that of 1907. The number and acreage in each category still held in January 1974 are summarized in Table 1.

Timber harvested on these old temporary tenures has accounted for a significant though declining proportion of the total provincial harvest in recent decades. The total volume harvested from these areas has risen irregularly, but with the expansion of operations on other timberlands, it has declined from 100 per cent of the harvest on Crown lands in 1912 to 18.4 per cent in 1973.

The earliest alienations of timber harvesting rights carried almost no terms and conditions, but within a few years they were granted only for limited terms and for limited areas, and became subject to charges in the form of annual rentals or renewal fees and royalties. All these provisions were changed frequently through the years, both before and after 1907 (see Appendix B). Our primary concern here is with the Crown charges payable for the timber rights and for the timber harvested.

Not surprisingly, the early lumbermen and timber speculators sought out the best timber and so many of the early licences and leases contained, and do contain, much of the finest timber in the province. They were established in the most accessible locations, mostly near tidewater along the southern coast and on Vancouver Island, and often strategically positioned in the mouths of rivers or in valley bottoms. More than 70 per cent of the total acreage now outstanding in old temporary tenures lies within the Vancouver Forest District. Through transactions in harvesting rights, mergers and the acquisition of one company by another these tenures have become increasingly concentrated in the hands of a few corporations. Today, nearly 80 per cent of the total acreage is held by five timber firms and two non-operating trust companies; although the latter have been assigned their holdings by two of the five timber firms for financial purposes. But these tenures are also

FLUCTUATIONS IN THE ACREAGE OF OLD TEMPORARY TENURES DURING THE PAST CENTURY

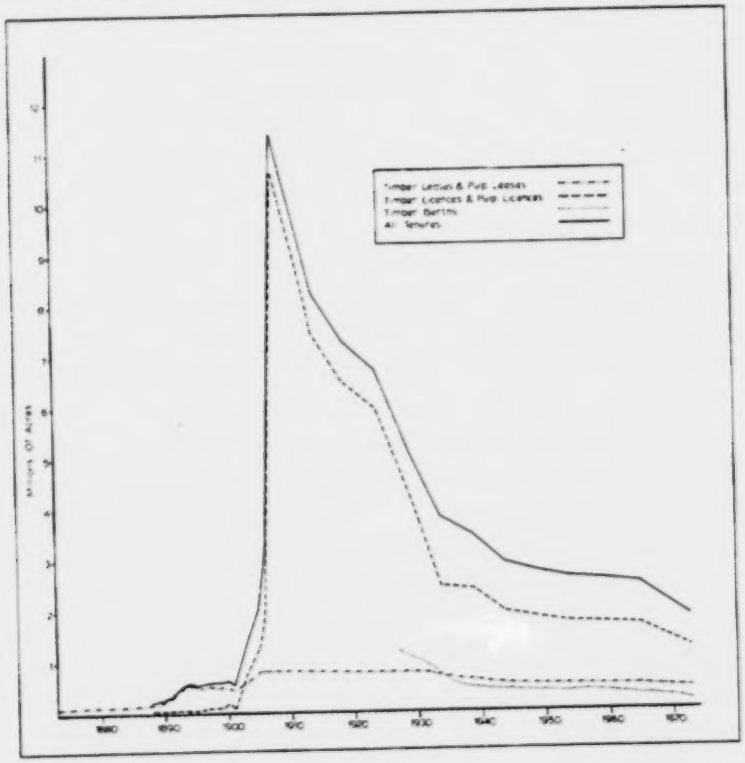


Table 1

OLD TEMPORARY TENURES IN GOOD STANDING
(January 1974)

	number	*total area (acres)*	*average (acres)*
Timber Leases	95	106,718	1,123
Pulp Leases	33	300,614	9,110
Timber Licences	2,219	1,103,144	497
Pulp Licences	221	103,264	467
Timber Berths	105	164,437	1,566
Total	2,673	1,778,177	665

Source: B.C. Forest Service

an important source of timber for a significant number of smaller operators in the Interior and on the Coast.

In 1973, nearly seven decades since most of these rights were alienated, these old temporary tenures produced about 3.9 million cunits which accounted for 15.6 per cent of the total volume harvested from both private and public lands in the Province and 28.3 per cent of that cut in the Vancouver Forest District. Its value is typically higher than that of other Crown timber, because it is generally composed of more valuable timber species and grades and is harvested in less costly logging locations. The statistics in Table 2 indicate the relative contribution of these old temporary tenures to the forest resources and revenues of the Province.

The Province currently imposes a variety of levies in respect of these harvesting rights. A first condition for maintenance of their tenure is payment of an annual rental, which amounts to 50 cents per acre on timber leases, licences and berths, half of this amount on pulp licences, and 11 cents per acre on pulp leases. A forest protection tax of 12 cents per acre is paid on those tenures that lie outside Tree Farm Licences and for those within these Licences the levy is 10 cents per cunit (or 18 cents per Mfbm) of the allowable annual harvest contributed by these tenures.

A special provision of the provincial property tax applies to these tenures. They are classed as "forest land" for tax purposes; those that lie within Tree Farm Licences are exempt from tax, but others bear an annual levy of one per cent on their assessed value which in turn is meant to be 50 per cent of the market value. The evaluation of timber is based on the price of comparable timber in the same Forest District.

Royalty is charged on timber harvested according to a schedule set out in the Forest Act. The contribution of all these levies to public revenues in 1973 is summarized in Table 3.

The history of these old temporary tenures is punctuated with debate over the amount of these government levies and the methods of determining the public equity in timber values. This has often been the major subject in the numerous briefs and representations submitted by the industry to the government over the years, and each of the Royal Commissions that investigated forest policy in 1910, 1945 and 1956 reviewed forest tenures and associated charges. By far the most important and sensitive issue has been the question of royalties.

Table 2

AREAS, TIMBER HARVEST AND ASSOCIATED PUBLIC REVENUES BY TENURE CATEGORIES
1973

	Area[1]		*Harvest*[2]		*Royalty or Stumpage Revenue*		*Average Revenue per Cunit*[3]
	thousands of acres	*per cent of total*	*thousands of cunits*	*per cent of total*	*millions of dollars*	*per cent of total*	
Forest land:							
private	6,326	2.70	3,646	14.72	1.54[4]	0.60[4]	$ 0.42[4]
federal, Indian lands, etc.	1,090	0.47	128	0.52	—	—	—
old temporary tenures	1,778	0.76	3,869	15.62	5.26	2.03	1.36
other Crown Provincial	124,918	53.35	17,126	69.14	251.78	97.37	14.70
Total Forest Land	134,112	57.28	24,769	100.0	258.58	100.0	$10.44
Non-forest land	100,016	42.72	—	—	—	—	—
Total Province	234,128	100.0	24,769	100.0	258.58	100.0	$10.44

1 As of December 31st. The areas changed slightly during the year.

2 Volume scaled. This differs slightly from the volume cut during the year.

3 Includes only levies upon timber cut (excluding taxes on property, income, etc.)

4 About 60% of the harvest in this category bears no royalty; 14% is from lands Crown granted between 1887 and 1914 which bears royalty at 30¢ per cunit; and 26% from lands granted since 1914, which bears the same royalties as old temporary tenures.

Source: B.C. Forest Service

Table 3

REVENUES FROM LEVIES ON OLD TEMPORARY TENURES 1973

Rentals	$ 757,568
Forest protection tax	194,000[1]
Forest land tax	391,000
Royalties	5,260,000[2]
Total	$6,602,568

[1] That part of the tax attributable to old temporary tenures within Tree Farm Licences was estimated as the fraction of the total tax recovered from Tree Farm Licences equal to the proportion of the total allowable harvest of these Licences contributed by old temporary tenures.

[2] Estimated by pro-rating the total revenue under Sec. 58 of the Forest Act between old temporary tenures and Crown granted lands (to which the same schedule is applied) according to the volume scaled for each.

Source: B.C. Forest Service and Department of Finance

The Task Force has uncovered and reviewed a surprisingly voluminous amount of historical material on this matter — government reports, statements of policy, industry briefs and submissions. Although timber royalties were often the subject of heated debate, the arguments have consistently centred on the level and form these levies should take — never on the ultimate purpose they were meant to serve. In 1912, a significant year in the evolution of provincial forest policy, the Premier, Sir Richard McBride, expressed the government's intent:

Under the special licence plan Parliament retains the power to increase both rental and royalty charges, so that as the timber values grow, so does the interest in the timber retained by the Province increase. The people are guaranteed a fair share in the rise in values, the unearned increment.[1]

While this objective has been widely accepted, the search for an appropriate formula for achieving it has gone on ever since. Twelve years later another Premier, John Oliver, at a public hearing on the controversial *Royalty Act* of 1914,[2] was searching for

[1] Quoted in the Sloan Report, 1956, p. 31.

[2] *Timber Royalty Act*, S.B.C. 1914, c.76.

solutions: ". . . the main point for consideration right at the present time is to find that equitable position which will protect the people of the Province and at the same time render you (lumbermen) a fair measure of justice and security for your investments".[3] And so the search has continued.

The similarity between the Premiers' objectives in 1912 and 1924 and those indicated in our Terms of Reference are worth noting. Although conditions have changed dramatically, the issues are similar today, and it is toward finding "that equitable position" that we address ourselves in the following pages.

[3] Proceeding of "Public Meeting re. *Timber Royalty Act*, 1914, held at the Parliament Buildings, Victoria, B.C. on Wednesday, the 3rd day of September, 1924, at 10 a.m. Hon. T. D. Patullo presiding" (unpublished typescript p. 41).

ROYALTIES AND APPRAISALS

The value of timber standing in the forest is measured by what it would be worth after it is cut and delivered to some market or utilization centre less the costs of harvesting and transport. This net value *(gross value* minus *costs)* or surplus is often referred to as the "unearned increment" or, in economists' jargon, as "economic rent". The cost must include, of course, a reasonable return to the operator's capital as well as his necessary operating costs in harvesting the resources.

Over the years the government, in its role as public landlord, has attempted to appropriate this economic rent for the public through a variety of levies on timber harvested from Crown forests. It is the specific charge of this Task Force to investigate the arrangements governing the existing Crown charges and to formulate recommendations for changes with a view toward ensuring "... that the payments made for Crown timber reflect the full value of the resources made available for harvesting, after fair and reasonable allowance for harvesting costs, forestry and development costs and profits...". This report is directed toward this issue as it pertains to timber rights on the old temporary tenures.

Statutory Royalties. The earliest devices by which the Crown attempted to appropriate a share of the value of timber were timber dues and royalties. The concept of royalty originated in British law as the share of natural resources reserved by and for the Sovereign upon their exploitation, and in the course of history royalty has come to refer to a variety of Crown levies on both public and privately owned natural resources and, in addition, to devices by which private owners of other things — ranging from mineral deposits to works of art and patents — reserve for themselves a share in the value of their assets. In Canada, Crown royalties on natural resources are usually specific dollar levies on units

of the resource exploited (although in the case of oil and gas, it is usually a fixed proportion of the gross value). Royalties on private and Crown timber in British Columbia are, with only minor exceptions, specified dollar assessments per unit of volume of wood harvested. From a simple 50 cents per Mfbm levied in 1888, royalties have been repeatedly revised and refined until today the rates applicable to timber cut on the old temporary tenures comprise a complex schedule (with rates varying for different species and grades and in different locations) found in Section 58 of the Forest Act. Some of the most important rates effective today are summarized in Table 4, although the Act provides much more detail, with special provisions for minor forest products.

Royalties fixed in dollars per unit of wood are easy to administer because they require only a scale of the timber harvested. No information is required about the forest from which it was taken, nor of the costs of logging and transport — information that the early forest administrators could not easily obtain. Indeed, the royalty that was applied for 25 years prior to 1914 — a fixed 50¢ per Mfbm — did not even require identification of species and grades. The disadvantages of such a system were that it implied that all timber was of equal value, which of course encouraged loggers to take only the best timber, and it failed to recognize that timber in different locations varied in value because of differences in logging and transportation costs.

The Timber Royalty Act of 1914 attempted to account for some of this variation in timber stands by establishing statutory royalties by species, grades and regions. This approach, though considerably modified and refined through time, applies to royalty-bearing tenures today, although the government has since designed a much more advanced appraisal system which it uses for assessing the value of other Crown timber made available for harvesting.

These refinements in the fixed royalty schedule cannot, however, be expected to take account of the wide variation in timber stands. Natural forests range from worthless to very precious, and so a fixed levy per unit of wood harvested from different tracts will inevitably extract an inconsistent fraction of the net value of timber. Even if royalty rates were fixed at levels that would extract the full net value of harvested timber in a given category on the average, all the timber of above average value would be underpriced and operators would incur a loss on the other half (and hence

Table 4

SELECTED STATUTORY ROYALTIES ON OLD TEMPORARY TENURES AND AVERAGE STUMPAGE PRICES FOR TIMBER ON OTHER CROWN LANDS BY FOREST DISTRICTS[1]

Dollars per cunit

1973

	Vancouver (coast) Forest District		*Prince Rupert (coast) Forest District*		*Interior Forest Districts*	
	royalty	*avg. stumpage*	*royalty*	*avg. stumpage*	*royalty*	*avg. stumpage*
Fir No. 1	5.10	18.11	4.20	17.50	1.70	26.52
No. 2	3.40		3.00			
No. 3	1.70		1.70			
Hemlock No. 1	2.20	12.55	2.20	9.37	1.10	5.41
No. 2	1.70		1.40			
No. 3	1.10		1.10			
Cedar No. 1	3.40	17.18	2.80	15.73	1.10	10.13
No. 2	2.20		2.00			
No. 3	1.10		1.10			
Spruce No. 1	3.40	21.09	2.80	24.15	1.70	21.17
No. 2	2.20		2.00			
No. 3	1.10		1.10			
Balsam All grades	1.10	12.09	1.10	2.22	1.10	8.35

[1] Stumpage prices indicated are averages for cutting permits on Timber Sale Harvesting Licences and timber sales during 1973.

Source: Section 58 of the Forest Act (for royalties) and B.C. Forest Service (for stumpage prices)

have no financial incentive to remove it). Apart from its obvious implications for efficient forest utilization, the system creates inequities among operators on forest stands of different quality.

Moreover, refinements to the royalty schedule provide, at best, for variations in only one component in the calculation of timber values (the gross value of the timber) while variations in the other (the cost of harvesting it) are left unaccounted for.

Royalties fixed in dollars per unit harvested suffer also from inconsistency through time, as costs and prices change. Because timber values and harvesting costs change constantly and often sharply, fixed royalties cannot be expected to appropriate a constant share of the net resource value unless they are continuously adjusted. This problem, incidentally, emerged dramatically in the early 1920's under the *Timber Royalty Act* of 1914. That *Act* had attempted to establish royalty rates for forty years; the schedule of levies to be revised every five years as the price of lumber changed. The price inflation experienced during and following World War I produced significant increases in lumber prices, and so also threatened to increase royalties. But the price increase was only the result of the declining value of currency, and since costs rose also the increased royalty assessments threatened to make timber operations uneconomic.[4] Inevitably, the *Timber Royalty Act* had to be amended and royalties were again fixed by statute.

Following a Royal Commission inquiry, the Fulton Report of 1910 had recommended that royalties should not be fixed for more than one year. Although that advice was not followed, government spokesmen have repeatedly emphasized their intention to revise royalties as economic conditions change, and the relevant statutes have been revised from time to time.

Competitive Prices. An alternative means of extracting the value of timber made available for harvesting is through competitive sales. If vigorous competitive markets prevailed for standing timber everywhere, the government could simply accept the highest bid, which could be expected to approximate the full net value of each tract. Thus in 1892, it was provided that 21-year timber leases be put up for competition, and the principle of competitive sales has been recurrent in timber disposal policy in British Columbia

[4] Proceeding of the "Public Meeting . . ." *op. cit.*

ever since. But, for institutional and technical reasons which are beyond the scope of this inquiry, competitive markets for standing timber cannot be depended upon throughout British Columbia, and in any event the old temporary tenures obviously preclude competition for the timber they contain as long as they are held in good standing.

Appraised Value. Another alternative is for the government to appraise separately each tract of Crown timber made available for harvesting, taking account of its unique timber inventory, transportation conditions, and the costs of harvesting, development and forestry. With adequate information, such an appraisal can approximate the price that a competitive market would yield — the expected surplus of value harvested over cost. All Crown timber alienated since 1912 has been appraised by the B.C. Forest Service to establish the minimum "stumpage price" per unit of wood that the government would accept for each major species.[5] This "upset price" was intended to be a minimum or reserve bid, above which competitors could tender. In recent years it has become, with rare exceptions, the actual price at which the timber is sold.

Individual stand appraisals do not suffer from the inflexibility and resulting inconsistent burden imposed by fixed royalties. With adequate information and expertise on the part of the appraisers, account can be taken of the timber characteristics and logging costs of each stand, and of the economic conditions prevailing at the time. Moreover, the appraisal system in British Columbia ensures that the rates charged will be adjusted as the value of wood moves upward or downward during the term of the harvesting contract.

For all these reasons, the Task Force has concluded that forest appraisals offer a far more equitable and consistent means of ascribing a value to Crown timber and determining the public's equity in it. Indeed, it appears that this view was held also by those who designed the early royalty legislation but resorted to standard levies as a more practicable expedient. Following intense

[5] "Stumpage" is a loose term which usually refers to timber itself. Stumpage value often refers to the gross value of timber. Stumpage assessments, which had their origin elsewhere, originally took a crude form — a levy "per stump" — but in British Columbia the term refers to appraised price. The terms stumpage and royalty are often used interchangeably.

debate over the *Timber Royalty Act* of 1914 the new Forest Branch under Chief Forester H. R. MacMillan reported:

> Hence a sliding scale had to be devised in order that the stumpage obtained by the government in time to come might reflect any change in timber values, up or down.
>
> Since these values are the difference between selling-price and cost of manufacture an exact determination of royalty could only be made after a complete audit of the books of every operating concern. As a practical matter the sliding scale had to be based on some simpler method than this, and accordingly the average selling-price of lumber was taken as the barometer of stumpage value.[6]

The exigencies of information that forced a recourse to fixed royalty in earlier decades are no longer compelling. Information about forests and harvesting economics has improved enormously, and the administrative capacity and expertise of the Forest Service has increased immeasurably. Moreover, the Forest Service has now had long and extensive experience in the application of appraisal techniques which, although they undoubtedly can and will be improved, provide a far more exacting and sophisticated basis for equitable Crown charges than does the present statutory royalty schedule or any modifications to it that might reasonably be considered.

A desirable feature of any system of Crown levies is that it minimize uncertainty to the operators who are subject to it. This need for certainty has figured importantly in representations to governments and Commissions of Inquiry over the years, and has had its influence on royalty policy.[7] Yet, frequent and often sub-

[6] *Report of the Forest Branch of the Department of Lands for the Year Ending December 31, 1914.* King's Printer, Victoria. 1915. p. 16. Note also that "stumpage" and "royalty" are interchanged.

[7] Thus in 1924, when the existing royalty legislation had obviously failed to provide the stability that had been hoped for, the Premier explained to a meeting of lumbermen: "I think it was about 1903 or 1904 when a very strong agitation was got up that in order to induce capital to come into the country it was necessary to have a more permanent security in the timber. And I can remember when the Legislature increased the term of the timber licence ... Then, as has been remarked, in 1914 Legislation (which fixed royalty rates on a sliding scale) was passed — and I want to be very frank with you — that Legislation, in my opinion, was never passed at the instance (sic) of the Government ... but passed at the instance of the timber holders who had invested their money in the timber; and the Royalty Act that you are decrying so much today, is, I may say, the very legislation which some of you men present here today asked for ... (But) the Legislation has not worked as it was expected ..." The Honourable John Oliver, in Proceedings of the "Public Meeting ..." *op. cit.* p. 38.

stantial changes in timber royalties both upward and downward have obviously precluded the certainty that the industry has sought. The Task Force believes that the adoption of appraised values for future royalties on old temporary tenures, as on other Crown timber, would remove the financial uncertainty now faced by holders of these tenures by eliminating the prospect of statutory changes from time to time. It would also reduce the present inequity in the treatment of operators on these old harvesting rights relative to those who depend upon other Crown timber, and thus move closer to the goal of equal treatment of cutting rights on Crown timberlands which has been urged by successive Royal Commissions.[8]

In short, the Task Force believes that royalties fixed by statute constitute an anachronism in a modern forest policy and that a better approach to measuring the public equity in timber is overdue. We have no hesitation in recommending that the present schedule of royalties applied to old temporary tenures as set out in the Forest Act be abolished in favour of royalty assessments based on forest appraisals such as those already applicable to other Crown timber.

[8] See, for example, the Fulton Report, 1910, p. D46, and the Sloan Report 1956, p. 31.

SPECIAL CONSIDERATIONS

Having concluded that appraisals offer a more consistent and equitable basis for determining Crown charges for public timber, the Task Force addressed itself to the appropriate relation between the appraised net value and the charges to be levied on timber harvested on the old temporary tenures. The ultimate objective was already clear — our Terms of Reference having charged us to formulate our recommendations with a view toward, *inter alia*, ". . . ensuring . . . that the payments made for Crown timber reflect the full value of the resources made available for harvesting, after fair and reasonable allowance for harvesting costs, forestry and development costs and profits . . .".

Past Payments. Many of the present holders of harvesting rights on old temporary tenures have, over the years, made annual rental payments, paid taxes, and paid for the acquisition of the tenures from previous holders. Almost all the representations to the Task Force by companies that hold these tenures stressed that we should recognize these past payments and allow for them, capitalized at compound interest to the present, in formulating our recommendations for revised royalties. The Task Force recognized this as an important matter of principle, and spent more effort studying this than any other issue.

In our opinion, payments made to another private party for the acquisition of rights to harvest public timber raise rather different questions than payments made to the Crown in respect of these rights. Private acquisition payments are of no relevance to the present policy issue, except insofar as they indicate that resource rents are not being captured under the present royalty arrangements and are being capitalized instead in private market values. Private transactions in old temporary tenures were made in full knowledge that the Crown reserved the right to adjust royalties

(and other terms and conditions) in such a way as to protect the public interest as circumstances changed. Indeed, as early as 1924 the Premier dismissed the argument that the government would recognize such private payments:

> ... are the timber holders today placing that speculative value, which they have probably paid to obtain the possession of these timber licences — are they placing that as an offset against the cost of production? Because if you are, I want to point out to you that the public, the people of the Province, the original owners of the timber, (have) got no interest in that speculative value of the timber as it passed from one speculator to another ...[9]

Royalties have never, to our knowledge, been manipulated to take account of the private payments that have been incurred to acquire harvesting rights. Moreover, in recent years substantial sums have changed hands in connection with the transfer from one party to another of rights to harvest other Crown timber, and the Forest Service has never recognized these in determining stumpage payments. The cost of acquiring timber is, of course, recovered through income tax allowances as the stands are depleted. There should be no expectation that the government would further allow for such payments in adjusting royalties on old temporary tenures.

Past payments made in the form of annual rentals and taxes are different insofar as they were made to the Crown. In our opinion this issue hinges on the rights conferred in respect of such payments. Rentals and taxes are levies which the lessee or licencee pays to retain his harvesting privileges — to harvest the timber (according to conditions stipulated at the time) or to retain it intact as a reserve for the future. They are not payment for the timber itself. The Minister of Lands, in 1914, declared:

> The Government ... handed over merely the cutting rights. In return licencees were required to pay only annual interest on the value of the timber reserved for them, which should be paid for when it was cut.[10]

The reference to "interest" is significant, because it implies that the annual payments are the carrying charge on public capital held

[9] The Honourable John Oliver in Proceedings of the "Public Meeting ..." *op. cit.*, p. 40.

[10] The Honourable W. R. Ross, Minister of Lands, 1914. Quoted in Sloan Report 1956, p. 30.

for the licence holder. The authors of the incisive Fulton Report of 1910 were even more explicit in their response to this question:

> It seems particularly clear to your Commissioners that the answer to this argument is that during each year of the lease the lessee has received full value for the rental paid by him; that this annual rental must be viewed in the same light as the annual fees paid by the special licensee, namely, as conferring a mere right or option to cut timber during that one year; and that the fact that the lessee may have paid rentals for 30 years does not put him in any better position or confer on him any higher rights than those he had after payment of the first year's rental.[11]

The conclusion of the Task Force is similar to that of the Fulton Royal Commission. Moreover, the practice of the Forest Service to date and the government's repeated declarations of intent should not have led present holders of old temporary tenures to believe that any other position would be taken.

> In issuing those timber-cutting licences it was expressly provided that the royalty to be paid when logs were cut was not to be any fixed amount, but was to be subject to increase at the discretion of the Legislature, so that as the commercial value of the timber increased the Provincial Treasury should receive its due proportion of the increment.[12]

And we have already documented the intention that "due proportion" was to mean approximately the net value of the standing timber.

The only exception to this position that we have been able to find is that taken by Commissioner Sloan. Surprisingly, he did not deal with this issue in his 1945 report; nor, in his 1956 inquiry, did he receive any testimony on the matter, though it was much more important then than now. However, without reference to the history of the controversy (which he often researched diligently on other problems) and (surprisingly also) without considering an appraisal base for royalties, he suggested that royalties be related to stumpage charges for other Crown timber but that past payments should be recognized by setting the fixed royalty rates below

[11] Fulton Report 1910, p. 12.

[12] *Report of the Forest Branch of the Department of Lands for the Year Ending December 31, 1914, op. cit.* p. 16.

average stumpage prices.[13] For the reasons given above we cannot concur with this position.

Before leaving this matter we feel bound to comment on some of the arguments put to us in favour of discounting royalties in recognition of past payments. First, while some present holders of old temporary tenures have voluntarily conserved and husbanded this timber, exploiting other Crown timber to preserve some of these better stands for special purposes or for winter operations, we cannot conclude that they should be reimbursed for having done so. They have not followed this practice at the behest of the government, and indeed by so doing they have postponed public revenue from these tenures.[14] And it is clear that some of the holders of these tenures over the last 70 years have held them for capital gain (with mixed success) which is a practice that the government has consistently opposed. We do not, at this stage at least, feel that it is in the public interest to bias the pattern of forest utilization between these tenures and other Crown timber by fiscal incentives, and our recommendations would go a long way toward achieving neutrality.

Annual rentals represent, as we have said, payment for retention of harvesting rights, and holders have received full value for these payments through time. To capitalize these payments at compound interest to the present as if they represent a lien against the value of timber upon harvest is quite inappropriate. While such payments may be regarded by the holder as an investment in his future timber supplies they do not diminish the public's equity in the resource. The argument that the capitalized value of these past payments should be allowed for in determining future royalties implies that the longer this timber is withheld from harvesting the smaller will be the public equity in it — a proposition which we cannot accept.

Nor, as a matter of principle, do we consider it in the public interest for the government to guarantee a return on private investments in Crown resources. But even if we did, there is no obvious way of equitably doing so insofar as many of these tenures have

[13] Sloan Report 1956, pp. 450-3.

[14] By integrating old temporary tenures into Tree Farm Licences some holders have subjected them to closer regulation and harvesting controls, but the Forest Service has not generally restrained their rate of cutting on old temporary tenures in favour of harvesting other Crown timber.

lapsed, others have changed hands many times, and those costs that can be documented have, in varying degree, been written off against income taxes as business expenses or allowances.

Finally, it is worth noting that the value of these harvesting rights has increased not so much because of the expenditures of their private holders, but rather as a result of external market forces, advances in technology and public investment in transportation and economic infrastructure. The old fixed royalty system was based on the assumption that the operator would bear the full cost of logging and development. Today, most of these costs are borne by the public, either directly or indirectly through allowances in calculating stumpage assessments; and these investments enhance the accessibility of old temporary tenures. And, of course, appraisal of timber on the old tenures themselves would allow for necessary costs of logging and transport.

In short, the Task Force has concluded that the arguments in support of allowances for the past payments made by present or former holders of these tenures in determining future royalties has no basis in law, logic or equity. We recommend therefore that royalty assessments in the future, as in the past, should not be manipulated in deference to historic payments made by present holders of old temporary tenures. The prudence, foresight or good fortune of those who acquired rights to harvest public timber does not warrant preferred treatment in royalty assessments.

Transitional Cost Allowances. Forest appraisals are designed to allow for all necessary costs involved in harvesting the timber, and if our recommended change in royalties were adopted all costs incurred after the date of implementation would be provided for in the normal way. Special provisions must be made, however, for undepreciated costs of logging roads and other facilities that were incurred before implementation of the new system; were designed to facilitate the harvesting of timber to be removed from these tenures after the implementation date; and were not already charged against other Crown timber.

Any road or development costs incurred to reach other Crown timber will have already been charged against the stumpage assessment. Even if such a road passes through an old temporary tenure held by another party no further account need be taken of it (except insofar as its existence raises the appraised value of the timber on the old tenure). If, however, an operator has constructed

a road (or other improvement) for the purpose of harvesting an old temporary tenure, and it was designed to be written off against timber to be removed after implementation of the new royalty system, some allowance must be made. In the opinion of the Task Force, the cost to be allowed in the assessment of the relevant timber to be removed after the implementation date should reflect the fraction that the volume of this timber comprises of the total volume originally served by the road. Where the road was built to develop other Crown timber as well as the old temporary tenure, the cost should be pro-rated to each in proportion to the volume to be removed from each area. The Forest Service has had a good deal of experience in pro-rating costs among operations, and while these transitional adjustments will not always be straightforward we are confident that the appraisal authorities can resolve difficulties equitably.

THE FOREST LAND TAX

Amendments made to the Taxation Act in 1953 provided that timber leases, licences and berths which had not reverted to the Crown would be classified as "forest land" for property taxation purposes and hence subject to an annual tax of one per cent on their assessed value. Those tenures within Tree Farm Licences were exempted from the tax. The Minister of Finance at the time apparently felt that this was the only practicable means of improving the revenues from Crown timber which bore no stumpage charges.

The annual rental cannot be increased by Statute until January 1st, 1955. The merits of increasing the royalty rates on timber leases and licences was given consideration. However, in the light of circumstances, it was deemed better to make these leases and licences subject to annual property taxation.

... This tax will apply only to Crown tenures granted early in this century and on which the cut is not managed in accordance with such forest policies as the Sloan Forest Commission recommended and on which no stumpage is reserved to the Crown.[15]

Accordingly, "forest land" is defined in the Taxation Act to include "... any land included in a timber licence ... for which a stumpage ... has not been reserved or not made payable to the Crown ...", and the Act specifically exempts those tenures held within Tree Farm Licences.[16]

In his 1956 report, Commissioner Sloan objected to this tax:

I am of the opinion, therefore, that the 1 per cent temporary tenures tax should be abolished. The contribution to revenue made by these

[15] Quoted in the Sloan Report, 1956, p. 430.

[16] *Taxation Act*, R.S.B.C. 1960, c.376 (as amended) Ss.2,2, 24(n). The definition of forest land for taxation purposes, defined in the Taxation Act, S.2 should not be confused with the quite different definition of forest land in the Forest Act, S.2.

tenures should follow the pattern on which they were established; that is to say, they should pay a low annual rental and stumpage (that is, royalty) at rates related to the values of logs at time of cutting.[17]

It is apparent that a major justification of this tax was that it would partly compensate for the preferential treatment of timber in old temporary tenures under fixed royalties. Insofar as we have recommended that this difference be eliminated by basing the royalty payments applicable to old temporary tenures on the same footing as the payments for other Crown timber, we recommend also that this tax be abolished.

Commissioner Sloan's objection to this tax was that it created an artificial incentive to cut the timber rapidly. We share his aversion to fiscal devices that distort the pattern of harvesting. In addition, the tax is in our opinion inappropriate insofar as the taxed timber is the property of the Crown, while the taxpayer holds only the right to harvest it.

[17] Sloan Report 1956, p. 434.

THE LOGGING TAX

Following the example of Ontario, British Columbia introduced in 1953 a tax on "income derived from logging operations", as did Quebec some years later. British Columbia's Logging Tax Act has been amended several times, and since 1968 the tax has been levied at a rate of 15 per cent on "logging profits" with profits of less than $10,000 exempted.

The main rationale for this tax is that it provides a means by which the government of the province can capture economic rents in timber which are not appropriated by direct charges upon its exploitation. In recognition of the provincial government's prior claim to natural resource revenue, the federal income tax provides for a limited credit, in respect of logging profits tax paid, against income tax.

This federal tax credit is 2/3 of logging tax paid up to a maximum of 2/3 of a 10 per cent tax on income from logging defined according to federal criteria. Since the logging tax rate in this province is 15 per cent, the credit is effectively 6 2/3 per cent of income. In addition to the federal tax credit, British Columbia allows 24 per cent (approximately) of logging profits tax paid as a credit against provincial income tax.

The most significant effect of these tax and credit arrangements is that they shift revenue from the federal to the provincial government. If the logging tax rate were only 10 per cent and the provincial tax credit 1/3 of logging tax paid, and if logging income were defined by the federal and provincial tax authorities in the same way, this shifting would be the only effect. Taxable companies would bear no burden of the tax because the federal government allows a credit for the other 2/3 of the tax paid. This was (roughly) the case in Ontario before that Province abolished its logging tax, and is the situation today in Quebec.

But in British Columbia the tax rate was raised to 15 per cent in 1968, and on this additional 5 per cent the federal government allows no credit. Since the provincial credit is only 24 per cent of logging tax paid, the logging tax imposes a net burden on taxable companies. Apart from differences in the definition of "logging income" for income and logging tax purposes, the effective net weight of the logging tax is 4.7 per cent of "logging income", i.e.:

logging tax rate	=	15%
less federal income tax credit	=	— 6 2/3%
less provincial income tax credit (.24 × 15%)	=	— 3.6%
effective net weight	=	4.7%

The definition, for logging tax purposes, of "income derived from logging" is rather broad, although the scope of the tax was clarified somewhat by amendments to the Act in 1973. Generally, it includes profits on the sale of logs cut or purchased in British Columbia; on the sale of standing timber or cutting rights; on the export of logs from the Province; and generally on income derived from cutting, buying, selling, processing or transporting logs. Integrated companies are required to separate their income attributable to activities subject to the tax from their profits earned in other operations, and for this purpose they are required to follow rules that differ in some respects from those that apply to federal income tax accounting.

As a means of appropriating for the provincial government the economic rents in timber resources the logging tax is a clumsy and inefficient device compared to direct charges for the timber itself. The tax cannot capture a substantial fraction of the rents unless it is levied at very high rates, which would reduce the operator's incentive to control costs and secure a good price for his wood — problems which do not arise with direct levies on timber harvested. And, while resource rents should not depend upon the efficiency of the individual operator, a tax on profits cannot distinguish between profits arising from resource rents and those resulting from the skill and efficiency of the entrepreneur.

The Task Force has studied the implications of the present logging tax for any change in royalty payments that may result from our recommendations. Our analysis indicates (as we demon-

strate later under the heading "Economic Impacts") that the gain to the Province from any increase in royalty payments would be greater if the logging tax rate were 10 rather than 15 per cent. This is important, because our Terms of Reference instruct us to ensure that the benefits from harvesting Crown timber accrue to the people of British Columbia.

In addition, since the combined federal and provincial income tax credit now falls short of the total logging tax paid, this special tax leaves logging profits taxed at a higher rate than the profits earned in other industries; a situation which we find difficult to justify. The long-run result of discriminatory treatment of one industry (or, more correctly, part of it) is to discourage investment in it.

Finally, the differences between the federal and provincial definition of logging income have been a source of considerable confusion for the industry, and inflict a significant administrative burden on both companies and the tax authorities. We have concluded that the Province could adopt the federal definition of logging income without significant adverse effects and that by thus harmonizing federal and provincial tax calculations a recurrent source of irritation would be eliminated.

All these considerations lead us to recommend (i) that the logging tax rate be reduced by 5 per cent, from the present 15 to 10 per cent; (ii) that the provincial income tax credit be increased to 1/3 of logging tax paid; and (iii) that the Province adopt the federal definition of logging income for tax purposes. The result of these changes would be to eliminate the net burden of the logging tax (since the tax paid would then be credited 2/3 against federal and 1/3 against provincial income tax), leaving logging profits taxed at the same rate as profits in other industries. It is worth noting that as long as the federal tax credit provisions are maintained, any further reduction of the logging tax rate below 10 per cent would simply transfer revenue from the provincial to the federal treasury and would yield no benefit to the industry.

OTHER LEVIES

This report is confined to the question of Crown charges in respect of old temporary tenures; other questions having to do with the terms, conditions and appurtenacy of these harvesting rights will be dealt with in a subsequent report. Pending investigations of these other matters we recommend that no change be made in the provisions for rentals, forest protection tax and other relevant charges applicable to the old temporary tenures. For the same reason we recommend that, until that report is submitted, none of these contracts be renewed for periods exceeding 12 months.

IMPLEMENTATION

Adoption of each of our three major recommendations — revision of the royalty system, repeal of the forest land tax and rationalization of the logging tax — would require legislative amendments; to the Forest Act, the Taxation Act and the Logging Tax Act, respectively. The changes in the logging tax should become effective on March 31st, the provincial government's fiscal year end. Repeal of the forest land tax should be made effective on December 31st, the assessment date fixed by statute. The latter would leave all forest land taxes payable for the current year, and no assessments need be made for the following year. Neither of these tax changes would raise serious administrative problems; on the contrary they would simplify administration considerably.

The main impediments to quick implementation of the recommended new royalty system for old temporary tenures are (i) the present deficiency of forest inventory data on some of these old alienations, which is necessary for appraisal calculations; and (ii) the limited capacity of the Forest Service to accommodate a large number of new appraisals in a short period. The Task Force has examined these problems in detail with officials of the Forest Service, and concluded that it would be appropriate to recommend that if the statutory amendments were made within the next month or so the new basis for royalty should become effective on all timber cut on these tenures after September 30, 1974.

The inadequacy of inventory data on old temporary tenures has always been a major deterrent to the adoption of appraisals for these areas. Under the fixed royalty system payments could be based simply on whatever volume was extracted from the forest; but appraisals require reliable timber cruises, estimated logging and transport costs as well as wood prices. But this problem is much less formidable today than ever before. The acreage under these

cutting rights is smaller. Most of those within Tree Farm Licences — more than half the total acreage (see Appendix B) — have been adequately cruised in recent years, and these data are filed with the Forest Service. Satisfactory inventories have also been made of some of those outside Tree Farm Licences, and all of these have been assessed (though often with less accurate data) for property tax purposes.

It is not necessary, of course, to have inventory data on all of these tenures in order to introduce the appraisal system. Appraisals must be made only of those relatively few in which logging operations are planned during the forthcoming year or so, and of these, only the ones for which there is not already adequate information would have to be cruised before appraisals can be made. With some adjustments to summer cruising programmes we expect that this field information could be gathered within a few months.

Holders of Tree Farm Licences submit proposed working plans for the approval of the Forest Service at 5-year intervals. These plans contain inventory data for the areas covered, including any old temporary tenures. In addition, for authorization of their immediate operations, operators apply for Cutting Permits, and for this purpose they are required to submit detailed logging plans for approval of the Forest Service. Applications for Permits for timber on which stumpage payments are charged are accompanied by inventory data that meets Forest Service standards for appraisal purposes. Permits for harvesting on old temporary tenures have not hitherto required inventory data in the same detail.

Timber harvesting on old temporary tenures outside Tree Farm Licences must also be authorized, and the Forest Service may require the applicant to submit a logging plan which may include inventory data.

It is thus apparent that the Forest Service has authority to require holders of old temporary tenures to submit logging plans and timber inventory data adequate for appraisal purposes. The Forest Service currently requires six months or more to process new Cutting Permits, refer these to other resource management agencies if necessary, calculate stumpage rates where applicable and grant approval. The immediate burden on the Forest Service implied by our recommendations would be to obtain the inventory data necesary for calculating the appraised value of timber under current harvesting approvals which will extend beyond the effective date for the new

royalty system, and for timber covered in new applications to become effective shortly thereafter.

The Forest Service will have to determine which of the old tenures to be logged after the effective date of the new royalty system have inadequate inventory information and see that the required areas are cruised. Beyond this, they must undertake the appraisals. The latter problem is aggravated by the possibility of changes in the appraisal system, following investigation of the issue by this Task Force. Much of the data required for calculations of appraised values can be gathered and collated for computer processing, however, without awaiting the decisions about adjustment to the system, since the same basic information will be required in any event.

It is important, in the interests of administrative efficiency, to spread applications for harvesting approval over the year as evenly as possible, once the new system is in full operation. We see no necessity for appraising all at once the timber to be harvested during the forthcoming year, as is currently the practice in connection with cutting permits on other Crown land.

Nevertheless, adoption of appraised royalty for old temporary tenures will undoubtedly increase the demands on the appraisal officers of the Forest Service, particularly those in the Vancouver Forest District. It is apparent to us that these personnel are already hard pressed, and that they cannot be expected to meet this additional responsibility with the care and precision appropriate to its economic importance without expansion of the existing administrative capacity. We urge, therefore, that if our recommendations are accepted provisions be made to supplement immediately the appraisal staff and resources of the Forest Service.

ECONOMIC IMPACTS

The primary concern of the Task Force in formulating its recommendations was to find an equitable and consistent solution to the problem of protecting the public interest in the value of the Crown resources under these old harvesting rights; a practicable and durable solution that would be responsive to changing economic conditions while ensuring a fair return to industrial operations. We have not set out to generate any predetermined level of public revenue. Had an increase in revenue been our goal we might have simply recommended higher fixed royalties, rentals or taxes; but this would not bring about the desired equity and consistency, nor would it meet our Terms of Reference. During recent decades, representations of the former Forest Council and its successor organizations have repeatedly argued that royalties should not be considered as a tax to be adjusted according to the vicissitudes of government revenue needs.[18] The Task Force agrees with this argument insofar as we believe that royalties should reflect, instead, a consistent share in the varying unearned increment of public forest values.

Nevertheless, we recognize that the implications of our recommendations for public revenues is of more than casual interest, and so we have attempted to estimate their impact. This is by no means a straightforward calculation because existing data upon which appraisals must be based — the species and grades of forest stands, their quality and costs of logging — are variable and in many cases grossly inadequate for these old tenures. Thus we have had to resort to indirect evidence upon which to base some of our estimates.

Royalties. The recommended reform of the royalty system

[18] See, for example, the brief to the Honourable E. T. Kenny, Minister of Lands and Forests, from the British Columbia Loggers' Association, March 24, 1948.

would have the greatest impact on provincial revenues. We lack the information and resources necessary for calculating the appraised value of Crown timber on which statutory royalty is now levied; but we can offer an estimate of the lower limit of the increase that might be expected by assuming that the timber on old temporary tenures is, on the average, at least as valuable as other Crown timber of corresponding species in the same Forest District. The average stumpage charge paid for other Crown timber in each Forest District applied to the timber from old temporary tenures scaled in those Districts in 1973, yields a total of about $54.2 million.[19] This exceeds by about $49 million the yield from statutory royalty in that year.

We consider this figure to be no more than a lower bound to the probable increase. The timber on old temporary tenures is generally of higher quality and is located on less difficult logging terrain than other Crown forests, all of which have the effect of yielding higher appraised values. The actual increase may be half again as high as our lower-bound estimate. But appraised values may rise or fall in response to changing economic conditions; and, of course, in the long-run the harvest from old temporary tenures must cease rising as the original stands are exhausted.

The increase in royalty payments is not the same as the impact on either the industry or the public treasury, because of offsetting effects through taxes on income. In the first column of Table 5 we trace the effect of a dollar increase in royalty through the tax system under the current provisions of the logging tax. A company like the large corporations that hold most of the old temporary tenures and whose profits are susceptible to both the current logging tax and income tax would bear about 45¢ of a dollar increase in its royalty payments. Because royalties are deductible expenses for income tax purposes, federal revenues would decline by about 31¢. Provincial revenues, through the combined effect of the dollar increase in royalty and its offsetting impact on logging and provincial income taxes, would rise by some 77¢.

The impact on company and government budgets of any increase in royalty payments would be somewhat different if proposed altera-

[19] For the Interior Districts, where about 17% of the harvest from old temporary tenures now originates, the breakdown by species was not readily available, and so average stumpage prices for all species combined were used.

Table 5

EFFECTS OF A DOLLAR INCREASE IN ROYALTY PAYMENTS[1]

	With Current Logging Tax	*With Recommended Changes in Logging Tax*
Logging tax yield[2]	— 15¢	— 10¢
Provincial income tax yield	— 8.4¢[3]	— 8.7¢
Federal income tax yield	— 31.3¢[4]	— 31.3¢
Provincial revenues:		
royalty	+ 100¢	+ 100¢
logging tax	— 15¢	— 10¢
income tax	— 8.4¢	— 8.7¢
Net change	+ 76.6¢	+ 81.3¢
Industry payments:		
to provincial government	+ 76.6¢	+ 81.3¢
to federal government	— 31.3¢	— 31.3¢
Net change	+ 45.3¢	+ 50¢

[1] Based on the assumptions that the $1 increase in royalty is paid by a corporation that earns profits which would be taxable under both the income tax and logging tax; and that at the margins the provincial income tax rate is 12%, and the federal income tax rate is 38% (net of the 10% abatement for provincial taxes).

[2] Results differ somewhat if either of the constraints on the allowance for return on capital in processing is effective.

[3] Direct impact —12¢, reduced logging tax credit +3.6¢.

[4] Direct impact —38¢, reduced logging tax credit +6 2/3¢.

tions were made to the logging tax, as the second column in Table 5 indicates. Then a dollar increase in royalty is offset in provincial revenues by a smaller decline in taxes on profits. The reduction in federal taxes is unchanged. In consequence, provincial revenues would rise by 81¢, federal revenues would fall by 31¢ and the company would bear 50¢ of the $1.00 increase in royalty.

The Logging Tax. Both appraised timber values and the level of logging income will fluctuate with economic conditions in the forest industry, and so the future impact of our proposed changes

in royalties and logging tax is difficult to predict. Since the rates were last changed in 1968 the yield of the logging tax has varied from a low of $9 million in the 1971-72 fiscal year to a high of $24 million in 1969-70.

Our recommendations involve reducing the logging tax rate from 15 to 10 per cent, increasing the credit against provincial income tax to 1/3 of logging tax paid and adopting the federal definition of logging income. The result of these changes would be a reduction in the combined rate of income and logging taxes on logging profits to the same rate that applies to the profits of other industries.[20]

Table 6

EFFECT OF RECOMMENDED CHANGES IN LOGGING TAX[1]

(Figures are per cent of income from logging operations)

	Present	*Proposed*	*Change*
Rate of Tax	15%	10%	
Credit against Provincial Income Tax	3.6%[2]	3.3%	
Net Yield to Province	11.4%	6.7%	—4.7%
Credit against Federal Income Tax	6.7%	6.7%	
Net Tax on Industry	4.7%	nil	—4.7%

[1] The effect of adopting the federal definition of income from logging operations is difficult to predict (though it is probably small) and is ignored here.

[2] The credit against provincial income taxes with the present system is taken to be 12/50 or 24%.

Table 6 summarizes the effect of the proposed change in the logging tax. Provincial revenues would decline by about 4.7 per cent of income from logging operations (or by slightly less than 1/3 of the amount of the tax as currently levied). Since the federal tax credit would not be affected by these changes, the industry would benefit from a reduction in taxes by an amount equal to the decline in provincial revenue.

[20] If the logging tax falls on an operator not paying income taxes because of past losses he would have no income tax against which to apply the credits for logging taxes paid. Such an operator would be taxed more heavily than one in another industry with the same record of profits and losses.

If, for illustration, we assume that the proposed change in royalties would increase royalty revenue by $50 million, and that income from logging operations *before* the increase in royalty payments is $200 million, Tables 5 and 6 can be used to estimate the changes in Crown revenues and industry payments.

The combined effect of the changes in royalties and the logging tax can be seen by considering these changes in sequence. Column 1 of Table 5 indicates that, with existing logging tax provisions, a $50 million increase in royalty payments would increase provincial government revenues by about $38 million (76.6¢ per dollar increase in royalty); reduce federal government revenues by about $16 million, and increase industry payments by about $22 million. Table 6 indicates that with logging profits at $150 million *after* the increase in royalties, the changes in the logging tax should transfer about $7 million (4.7% of $150 million) directly from the provincial government to the industry through a reduction in provincial income and logging taxes. Combining the effects of both changes in this illustration yields:

provincial revenue increase	$31 million
federal revenue decrease	$16 million
industry payments increase	$15 million

These numerical illustrations of the effects of the proposed changes in royalties and logging taxes are very crude and a number of factors have been ignored in their preparation. Yet they should reflect the general magnitudes to be anticipated in periods of buoyant markets and the distribution of the changes across governments and industry. The effects of the changes under poorer market conditions would be considerably smaller.

The Forest Land Tax. If the forest land tax now levied on those tenures lying outside Tree Farm Licences were abolished, this source of revenue, which amounted to $391,000 in 1973 would, of course, be eliminated. This yield has declined substantially during recent years, primarily because more of the old temporary tenures have been incorporated into new Tree Farm Licences and hence become exempt from the tax. In future years it might have been expected to increase if no more Tree Farm Licences were issued and if assessed values were raised through either increasing timber

prices or through the current provincial policy of bringing assessments closer to real market values.

But if our recommendation for royalties based on appraisals is adopted, the provincial treasury would not suffer by the amount of this tax yield, for two reasons. First, the property tax assessors make allowance for royalties payable when assessing these old tenures, and to the extent that appraised royalties would be higher than they are now, the assessed property value and hence the yield of the tax would be lower. Second, this type of tax usually finds its way (though not always systematically) into the costs estimated for appraisals, and so any reduction in the tax should be compensated by an increase in royalty revenue. Repeal of the forest land tax, combined with our recommended reform in royalties, would therefore have an insignificant net impact on both taxpayers and government.

Other Effects. It should be emphasized that not all royalties would rise under an appraisal system. Assessments would vary according to the characteristics of forests, and where the quality of timber is low and costs are high, royalties may fall below the current statutory rates. Representations made to the Task Force suggest that the appraised value of the timber in some of these tenures would be well below average stumpage values on other Crown timber, particularly in the Interior regions. And, of course, appraised values would fall if timber values decline.

Relating the royalties to timber values in each area encourages better forest utilization by reducing the incentive to "high-grade" the forest — taking only the timber that will yield a profit after the fixed royalty is paid.

It can be expected that the recommended appraisal system would lead to some shift in logging patterns. To the extent that holders of these rights have hitherto been able to exercise them more advantageously than logging other Crown timber, and since most of these tenures are held by integrated companies that operate on both, the financial incentive to concentrate operations on the former would be eliminated. The result is likely to be some shift in harvesting toward other Crown timber.

This effect should not be overemphasized, however. First, the rate and pattern of harvesting other Crown timber both within and without Tree Farm Licences is closely controlled by the Forest Service, and this is an important constraint on any redirection of

logging patterns. Second, the advantage of operating on these old tenures has been not only in the form of preferred Crown charges, but also in the form of greater freedom from government controls on logging practices, road development and other regulations applicable to other Crown timberlands.

SUMMARY OF MAJOR RECOMMENDATIONS

The Task Force's investigation of the Crown charges relating to timber harvesting rights in the form of old temporary tenures, summarized in this report, leads to the following recommendations:

1. That the existing schedule of fixed royalties set out in the Forest Act, insofar as it applies to timber harvested on old temporary tenures, be abolished; and that royalties be determined instead by forest appraisals such as are now used in establishing the price for other Crown timber. If this proposal is adopted within the next two months, it is recommended also that the new royalty system become effective on all timber cut on these tenures after September 30, 1974.
2. That the forest land tax be abolished at the end of the current assessment year, December 31st.
3. That the burden of the special tax on logging profits be eliminated by reducing the existing tax rate from 15 to 10 per cent; by increasing the provincial income tax credit to 1/3 of logging tax paid; and by adopting the federal definition of logging income for tax purposes — this change to become effective at the end of the current fiscal year, March 31st.

A number of supplementary recommendations are explained in the report.

QUALIFICATIONS

In recommending that royalty payments for timber cut on old temporary tenures reflect the appraised value according to assessment procedures applicable to other Crown timber, we do not mean to imply that we are satisfied with current appraisal formulae and procedures. Indeed, it is our intention to address ourselves during the coming months to an investigation of appraisal procedures as instructed by our Terms of Reference. We are of the opinion, however, that any reforms that might be recommended in the general appraisal system need not delay legislative and administrative action to provide for the changes recommended here.

Similarly, the Task Force expects to investigate later the diverse forms of taxes and rentals that apply to different forest land tenures in the Province. Although we have recommended that the forest land tax that now applies to certain old temporary tenures be abolished, we shall undoubtedly consider again the question of taxes appropriate to the rights conferred by various kinds of forest tenure in the light of tax policy applied to other forms of occupancy of Crown land.

Peter H. Pearse, PH.D., R.P.F. *(Chairman)*

Arvid V. Backman, R.P.F.

Edward L. Young, R.P.F.

Appendices

A. Terms of Reference

B. History of Old Temporary Tenures

APPENDIX A

TERMS OF REFERENCE FOR THE TASK FORCE ON CROWN TIMBER DISPOSAL

The Task Force on Crown Timber Disposal shall —

1. Investigate the policies, legislation, procedures and practices governing the disposal of Crown timber in the Province, and in particular:

— the provisions for royalties, stumpage charges, rentals and other payments for public timber and for rights to harvest public timber.

— the forms of rights and tenures governing the acquisition of rights to public timber and to public forest land.

— such other matters that may be referred to the Task Force by the Minister.

2. Formulate recommendations for changes in the arrangements governing the above matters with a view toward protecting the public interest in the Crown forest resources, and in particular toward ensuring:

— that the full potential contribution of the public forests to the economic and social welfare of British Columbians is realized, recognizing the diverse commercial wood products, recreation and wildlife benefits, domestic stock grazing and environmental values of forest resources.

— that the payments made for Crown timber reflect the full value of the resources made available for harvesting, after fair and reasonable allowance for harvesting costs, forestry and development costs and profits; and that the marketing arrangements for timber products permit their full value to be realized.

— that the health and vigor of the forest industry in the Province is maintained.

— that good forest management in terms of harvesting practices, protection and conservation, reforestation and silviculture is provided for.

3. Report to the Minister of Lands, Forests and Water Resources on these matters, and in particular to submit an interim report on or before February 28th, 1974 with recommendations for improvements in the arrangements governing the Crown charges for timber and harvesting rights on Timber Leases, Timber Licenses, Pulp Leases, Pulp Licenses and Timber Berths.

APPENDIX B

HISTORY OF OLD TEMPORARY TENURES

Alienation of Crown lands in the Crown Colony of Vancouver Island began in 1858; and any land, including any timber it contained, was available for sale at 10 shillings per acre. In 1865, one year before Vancouver Island united with the mainland of British Columbia, and six years before this Province became part of the Dominion of Canada, a *Land Ordinance* introduced the principle of granting rights to harvest timber on Crown lands without alienation of the land and resources themselves.

> The advantages of this distinctly Canadian system were easily recognized, and, as a result, the province has retained an interest in and a control over by far the greater part of its forest resources; at the same time it has supplied the lumber industry with abundant raw material at reasonable price.[1]

Alienation of lands and timber by sale, pre-emption and homesteading continued, however, for several decades. In 1896 timber lands were defined and the sale of them prohibited, but this policy was not strictly enforced until 1912. Moreover, it remained possible to acquire forest land that had had the timber removed until relatively recently. But between 1865 and 1907 when the granting of harvesting rights was temporarily suspended, the Province provided rights to harvest timber through several kinds of temporary tenures and inherited some later from the federal government. Most

[1] H. N. Whitford, Ph.D. and Roland D. Craig, F.E. *Forests of British Columbia*, Committee on Forests of the Commission of Conservation of Canada (Sir Clifford Sifton, K.C.M.G., Chairman), Ottawa, 1918. Much of the documentation for this Appendix has been drawn from this excellent source (particularly Ch. 4), and from the thorough review of government policy and events in the Fulton Report 1910.

of these cutting rights have since lapsed, but those that are still held are a significant source of timber for the forest industry today, especially in the southern coastal region of the Province. This Appendix offers a brief review of the evolution of these tenures with emphasis on their purpose and the public interest in them.

LEASES

The first alienations of harvesting rights under the *Land Ordinance* of 1865 were timber leases which carried no conditions with respect to size, payments to the Crown or terms. The only fixed condition was that leases were available only to those "actually engaged" in harvesting timber, as stipulated in the *Ordinance*. The *Ordinance* also provided however, that leases might be subject "... to such rent, terms, and provisions as shall seem expedient to the Governor.", and under this provision and subsequent enactments various Crown charges, terms and other conditions were later imposed.

Important amendments to the *Land Act* in 1888 limited the term of new leases to 30 years. Four years later it was reduced to 21 years, and in 1901 the *Act* provided for the renewal of leases for consecutive periods of 21 years, subject to the then existing conditions, rentals, royalties and regulations.

The first Crown charges were in the form of annual ground rentals, which by 1888 varied from 5¢ to 10¢ per acre. In the amendments of that year rentals were fixed at 10¢ per acre. Nine years later rentals were set at 15¢ per acre, with the condition that rental and royalties together could not be less than 50¢ for each acre under lease. By 1906 rentals were 25¢ per acre and they have since been raised to 50¢

Before the legislative changes of 1888 royalty on timber harvested was fixed at 50¢ per Mfbm and applied at this rate to all leases granted after 1879. Half of the royalty was refundable upon export of spars, piles, shingles and manufactured lumber from the Province until 1900 (on shingles until 1905).

The legislation of 1888 made clear the intention that leases were designed to encourage manufacturing in the Province. It was required that each lessee operate a sawmill with a 12-hour capacity of at least 1 Mfbm for each 400 acres under lease. There was apparently some difficulty in enforcing the spirit of this provision, and subsequent amendments made it more explicit. In 1892 it was

required that the mill be appurtenant to the lease and a deposit equivalent to 10¢ per acre was necessary as a guarantee that the mill would be built. In 1897 the lessee was required to actually operate the mill for six months each year, and the allowed size of the lease per 1 Mfbm daily capacity was reduced to 100 acres. Provision was also made for non-mill owners to obtain leases, but they were required to pay a rental 5¢ above the 10¢ per acre paid by mill-owners at that time.

The encouragement to manufacturing was strengthened in 1901 when legislation required that all timber cut on Crown lands be manufactured in the Province — a policy that has been followed ever since. The *Timber Manufacture Act* of 1906 extended this requirement to timber harvested from lands Crown granted after that date.

The principle of competitive bidding for harvesting rights was introduced in 1891 with provisions that allowed lands surveyed by the government to be put up to tender. The following year it was provided that all leases should be put to competition.

The granting of timber leases was discontinued in 1905. By then, nearly 688 thousand acres had been alienated in this way. Today, this area has declined to 107 thousand acres, covered by 95 leases (see Table 1). They now bear royalty as specified in the Forest Act (see Table 4), and annual rental at 50¢ per acre. Those that lie outside Tree Farm Licences are subject to the forest land tax at 1 per cent of assessed value and to forest protection tax of 12¢ per acre. Those within Tree Farm Licences bear the forest protection tax at the equivalent of 10¢ per cunit of sustainable yield. Thirty-three of these leases expired between 1964 and 1966, the remainder in 1972. All were renewed for 21 years.

Around the turn of the century a demand for pulp timber began to emerge, and the government made provision for pulp leases. Pulp lessees were required to build a pulp mill in the Province with a capacity of one ton of pulp (or ½ ton of paper) per day for each square mile under lease, and to operate it at least six months per year. These were granted for 21 years, renewable, subject to rentals of 2¢ per acre and royalty of not more than 25¢ per cord of pulpwood. Timber not used for pulp carried the same royalty as timber cut on other leases, and all timber harvested was required to be manufactured in the Province.

Pulp leases were granted only between 1901 and 1903. Only one

paper mill was operating by 1903 (at Port Alberni) but some 353 thousand acres were so alienated; of which 301 thousand acres in 33 leases remain outstanding today. These pulp leases average over 9,000 acres in size — far larger than the other old temporary tenures (see Table 1). Apart from ground rentals which are only 11¢ per acre, the Crown charges are similar to those applied to timber leases. All existing pulp leases were renewed for 21 years in 1954.

LICENCES

Leases were designed to meet the needs of mill-owners. Their size was constrained by the capacity of the appurtenant mill; strong incentives were provided for processing; mill operations were required and payments for timber were low. The *Timber Act* of 1884 introduced timber licences to serve the requirements of the large number of independent loggers. To prevent speculation in timber, the first licences were very restrictive: they were limited to 1,000 acres; any person could hold no more than one; they were not transferable; they could be cancelled if logging did not proceed; and their term was only four years. They were originally designed to be more lucrative to the Crown than the leases of the time. Licences were sold for $2.50 per acre, annual rentals were $10 and timber dues were payable at 15¢ per tree plus 20¢ per Mfbm. Mill ownership was never a requirement for licences.

The *Act* of 1888 introduced special timber licences. These were subject to the same limitations as the earlier licences but the term was for only one year, renewable at the discretion of the Chief Commissioner of Lands and Works; the annual fee was fixed at $50; and royalty at 50¢ per Mfbm was the same as that paid on leases. Some changes in the provisions governing special timber licences were made before the radical reforms of 1905. In 1901 the area was reduced to 640 acres (a square mile) and the fee increased to $100. This was increased again in 1903 to $140 and $115 west and east of the Cascade Mountains respectively, and in that year also the term was increased to a maximum of five years upon payment of all rentals as a lump sum in advance. In 1894 the first provision was made for "staking" lands for licences — a procedure whereby a claim could be established by planting a stake at a corner of the area applied for.

About this time, pressures began to build for changes in policy that ultimately changed the whole forestry picture in the Province. The lumber industry was experiencing a period of prosperity accompanying a general economic expansion generating a growing demand for timber. Existing licence holders were agitating for extension of their terms. Apprehensions about future supplies of timber in the United States were becoming widespread, and the great white pine forests of Eastern Canada were nearing exhaustion. Construction of the Panama Canal began in 1904 with profound implications for the lumber industry of the Pacific coast. The Government of the Province began to realize its enormous wealth in timber, yet public revenues were heavily strained.

The circumstances of the time were later explained by the Minister of Lands, The Honourable W. R. Ross, speaking to the Legislature in 1912.

In 1905 the administration realized that the leasing system was an extremely bad one, the timber being sold for twenty-one years ahead at the low prevailing rates. It was obvious that the public timber was being sold at a sacrifice price. It was decided to substitute a constructive forest policy which would revolutionize conditions in the province. This marked the beginning of the modern epoch in forest policy.

For years the province had been in bad way. The public revenue was insufficient. Development was starved for want of money. The credit of the province was low and immigration had been reduced to a trickle. These conditions could not do more than retard the progress of the lumbering industry, but the cut was small. So also was the forest revenue, which was only $455,000 in 1904. There existed then the extraordinary situation that in a country of magnificent forest resources the revenue derived from them was only about one-seventh of the scant provincial revenue of $3,000,000. The forest wealth of the province was locked up, it was no help to the progress of the young community. The province was starving for capital and had no means of drawing upon its natural wealth. And yet the rest of the continent was even then beginning to realize that the timber supply was insufficient; in fact a shortage, a timber famine, was predicted in thirty years by those in a position to know.

Stumpage in consequence was being sought almost feverishly by investors. Here in British Columbia was the timber; here the crying need for public revenue to open up the province, for capital to invigorate our anæmic industries and there, throughout the older regions of the continent, was the capital we needed, capital which was seeking to invest itself in the fast diminishing western reserve of timber that

in consequence of the exhaustion of the eastern forest was destined to control the lumber markets of America before another thirty years should pass.

It was a moment of danger for the province. Modern history is full of sad examples of young countries determined to get capital at any price, at any ruinous sacrifice of their future.

The administration of 1905 nailed its colours to the mast; its motto was 'public ownership of forests.' But it was essential to encourage one of the mainstays of the province, the lumbering industry; also it was essential to give a supply of timber for the future operations of existing mills; to encourage by the same means the building of new mills.[2]

The action taken by the government in 1905 is described in the more restrained language of the Fulton Report of 1910.

The legislative problem was solved in a most ingenious manner by the abolition not only of the leasing method but also of the limited, non-transferable licenses, and by the adoption of an entirely new principle in forest policy. That principle was the reservation of a share in the increment of value of standing timber as it should accrue. It is true that other Provinces in Canada had attempted something of the kind by leaving uncertain the amount of royalty that they would levy in future years upon the timber sold by them under their auction-license systems. But tardy recovery of some of the public's share in the risen value of the licensed timber bears no comparison, as a policy, with the effective and subtle control that the British Columbia Government retained in 1905 over future alienations of Crown timber. This power was secured by the issue of transferable licenses, options to cut timber during a 21-year period on specified square miles of forest, and the essence of the idea lay in the fact that it was left entirely to the Government to fix, from year to year, what annual payments should be made for the renewal of these options.

Although the new licenses were thus subject to any alteration in either rental or royalty that the Government might at any time impose, they were taken up with great confidence both by operators and investors. In fact the opportunity to acquire standing timber in British Columbia caused recognition of its value to burst with suddenness upon the lumber interests of the continent. From less than fifteen hundred the number of licenses sprang rapidly within three years to over fifteen thousand.

Though the effect upon the public revenue was most gratifying the insatiable nature of the continental demand for standing timber

[2] Quoted in Sloan Report 1956, pp. 29-30.

aroused a certain uneasiness, and the Government, at the end of 1907, decided to impose a reserve upon all remaining Crown timber. The fifteen thousand licenses continued, however, to exist, and to-day we estimate that 9,000,000 acres of merchantable forest are covered by them.[3]

The authorities of the day were highly satisfied with the fruits of their innovative policies:

> Two things are therefore plain; one, that the value of standing timber in British Columbia is destined to rise to heights that general opinion would consider incredible to-day; the other, that under careful management heavy taxation need never fall upon the population of the Province.
>
> The profits from a permanent Crown timber business should make British Columbia that phenomenon of state craft and good fortune — a country of "semi-independent means."[4]

In the economic recession that followed 1907 many licencees allowed their licences to lapse and, in spite of special provisions to enable reinstatement through payment of back rentals, many more defaulted during the Great Depression (see Figure, p. 12).

Of the more than 15 thousand licences taken up by 1907, 2,219 remain in good standing today and they still comprise by far the most important category of old temporary tenures (see Table 1). They now bear annual rental of 50¢ per acre, forest protection tax, forest land tax on those outside Tree Farm Licences and statutory royalty. Most (but not all) carry a term of only one year.

Between 1919 and 1921 certain special timber licences were converted to pulp licences under provisions of the Forest Act, so that their owners could gain some of the advantages that holders of pulp leases had over holders of timber leases. The annual renewal fee was set at half that on special timber licences, and the royalty was 40¢ per cord (which was nevertheless higher than the 25¢ payable on timber cut on pulp leases). If saw-timber is removed, the royalty and rentals payable are subject to the same upward adjustment as in the case of pulp leases. These licences are subject to forest protection tax and forest land tax in the same way as timber licences. There are now 221 pulp licences covering 103 thousand acres — the smallest category of old temporary tenures.

[3] Fulton Report 1910, p. D-16.

[4] *Ibid.*, p. D-20.

TIMBER BERTHS

Under the Terms of Union under which British Columbia entered Confederation and became part of the Dominion of Canada in 1871, the Dominion undertook to construct a railway to connect the western seaboard with the railway system of Canada. In return, British Columbia agreed to transfer to the Dominion certain public lands in aid of the railway construction. After some difficulties were resolved, the Province conveyed to the Dominion a belt of land extending 20 miles on each side of the main line of the Canadian Pacific Railway — some 17,000 square miles. Because some of this land was considered valueless, the province conveyed "lieu lands" in addition, amounting to 5,470 square miles in the Peace River area (the "Peace River Block").[5]

In 1930, following a Royal Commission inquiry, the Dominion returned to the Province the Dominion Railway Belt and the Peace River Block, subject to any alienations made during the period of Dominion control. Timber harvesting rights granted by the Dominion in the form of timber berths thus came under provincial administration.

In 1910 the railway lands were roughly estimated at 11 million acres, some 1.3 million of which were under federal timber licence or permit. By January 1973, the area covered by timber berths had declined to 164 thousand acres in 105 berths. These berths were originally subject to special Crown levies, but by Order-in-Council in 1968 rental and royalty rates as well as forest protection tax and forest land tax were made the same as those applied to timber licences.

RELEVANT PROVISIONS SINCE 1910

Appreciation of the circumstances surrounding old temporary tenures requires an understanding not only of their origin but also of subsequent events that have changed the economic and institutional context.[6] In 1907 when alienation of harvesting rights was sus-

[5] The conveyance of 3,000 square miles on Vancouver Island in aid of the Esquimalt and Nanaimo Railway, and a number of other railway grants, were separate transactions and are not of direct concern here.

[6] In addition to the tenures discussed above, there were other early alienations of harvesting rights, such as handloggers' licences and hemlock tanbark leases, none of which survive today.

pended, the government passed an Order-in-Council reserving all unalienated timber in the Province. The Royal Commission of 1910 had only very crude information about the existing forest resources, but they estimated that two-thirds of the merchantable forest had been alienated, leaving the other third — perhaps 3.75 million acres ("a pure conjecture") in the forest reserve. They guessed that there was 240 million Mfbm of merchantable timber in the Province and that the current harvest was less than 1 million Mfbm.

With so much timber already alienated to meet future needs, the Fulton Commission recommended that the forest reserve be kept intact and that no further alienations take place except in very special circumstances. Perceptively, they saw the possibility of monopolistic tendencies among licence holders, and to forestall this it might be expedient to put new timber on the market. Or, small fractional areas of reserved timber ajoining alienated timber might best be made available for harvesting with the lease or licence. For such cases, they recommended an appraisal system to establish a minimum price, above which competitors might bid.

After 1907, there was no way in which new alienations of Crown timber could be made, but the Forest Act of 1912 made provisions for the innovative system recommended in the Fulton Report. These new licences became known as "timber sales", and gradually took on much greater importance than the Commissioners had envisaged. Before World War II the harvest from timber sales had risen to more than one-third of the combined cut from leases and licences.

These timber sales, typically for terms of two or three years, were subject to standard royalty, the same rental per acre as applied to timber licences (21.88¢ on the Coast and 15.62¢ in the Interior), and forest protection tax. They also introduced important innovations in public forest management. First, each sale was subject to special conditions written into the contract to ensure proper harvesting, protection and forestry practices. Second, in addition to royalty (which has since been abolished for these sales), they were subject to stumpage charges. The Forest Branch's appraisers, by estimating the value of the harvested timber and subtracting the estimated costs of harvesting and transport would establish a minimum acceptable price or "upset price" above which competitors (except in cases of very small tracts) might bid. This was the origin of the

appraisal system now used in determining the charges for most Crown timber made available for harvesting.

Prior to 1946 then, most timber harvested in the province was still cut on old temporary tenures which were not subject to close government management and (apart from the relatively small harvest from private lands) the rest came from short-term timber sales and its variant called pulpwood timber sales.

Through acquiring strategically-located old temporary tenures, many companies were able to establish advantageous positions in competing for nearby Crown timber. Evidence presented to the second Sloan Commission reveals the high competitive advantage that some companies enjoyed by effectively controlling access to Crown timber. In result, competition for such timber often did not occur, and the sales were made at appraised "upset" prices. To the extent that such strategic acquisition of old temporary tenures occurred, at least part of the price paid must be credited to the expectation of lower-priced Crown timber nearby.

One other significant policy had been introduced prior to the second Royal Commission enquiry in 1945. Twenty years earlier, in 1925, the government introduced a new concept of forest reserves. Crown forest land was, for the first time, to be managed for continuous production of wood crops, and a fund was created for the development of reserved areas. By 1945, 44 forest reserves had been established, amounting to 6.6 million acres on the coast and 12.3 million acres in the interior. In these reserves no agricultural or other development was permitted, and timber was alienated by timber sales. However, the Sloan Report of 1945 reported that little had been done to ensure sustained yield on these areas.

The first Sloan Report in 1945 was directed primarily to two related problems. First, how could the Crown forests be brought under a system of planned forest management following sustained yield principles? Second, how could operators be provided with assured, long-term supplies of timber sufficient to encourage them to undertake the heavy investments associated with capital-intensive utilization plants? Sloan's recommended solution, which was adopted, was to create two kinds of "working circles" to be managed according to the principles of perpetual sustained yield.

One of these forms, which became known as Public Working Circles and later as Public Sustained Yield Units were to be managed directly by the Forest Service to serve the needs of independent

logging operators. The Forest Service would calculate the annual allowable harvest and make it available to loggers through the medium of timber sales. There are now 94 Public Sustained Yield Units in the Province.

The second was conceived as a partnership arrangement between the government and timber companies who did not hold enough timberland in freehold or old temporary tenures to serve their long-term wood requirements. Companies with holdings in a particular area were to have sufficient nearby unalienated Crown forest combined with their own tenures to provide raw material in perpetuity in sufficient quantities to meet the needs of large utilization plants. The whole unit would be managed by the company on a sustained yield basis according to working plans approved by the Forest Service and these management responsibilities were considered very onerous at the time. These "private" working circles were called Forest Management Licences and later Tree Farm Licences. Together, these Public Sustained Yield Units and Tree Farm Licences now cover all the Crown forest land in the Province.

After some initial hesitation, most of the large forest companies responded enthusiastically to this arrangement, and today there are 34 Tree Farm Licences in the Province, 10 of them exceeding 500 thousand acres and 5 more than a million acres. Firms in advantageous geographical positions applied for and received rights to adjacent unalienated Crown timber which was added to their own holdings to form sustained yield units. They continued to pay royalty on timber harvested on old tenures enclosed within the management unit, and the other Crown timber was sold at appraised "upset" stumpage prices (competition being precluded). New companies sometimes acquired holdings of old temporary tenures to put themselves in a position for the partnership arrangement, although some of the later Tree Farm Licences in the interior are comprised almost entirely of stumpage-bearing timber. Of the 34 Tree Farm Licences held today, 20 are comprised of more than 95 per cent Crown land over which the licencee had no prior tenure.

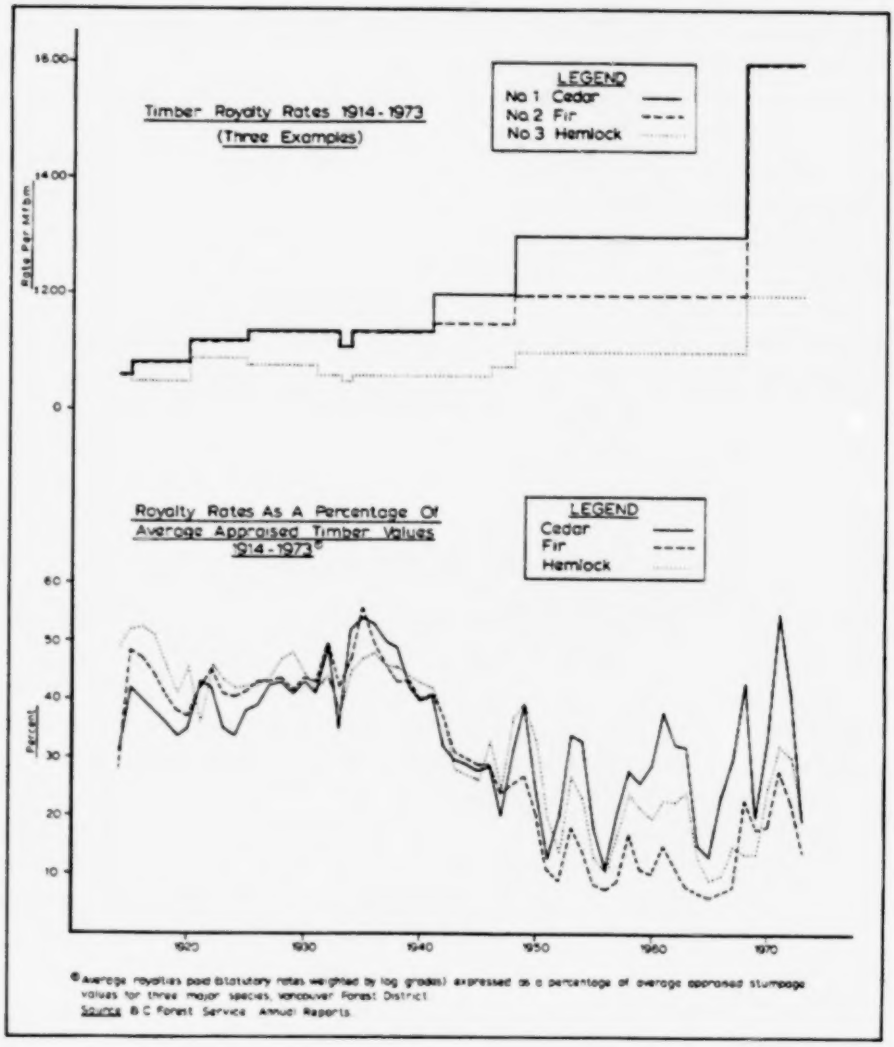
As a result, more than half of the old temporary tenures are now within Tree Farm Licences. The accompanying Table indicates the number and acreage of each category of old temporary tenures within and without Tree Farm Licences in January of this year. In the Vancouver Forest District, where two-thirds of the total acreage in old temporary tenures is located, the proportion within

OLD TEMPORARY TENURES WITHIN AND OUTSIDE TREE FARM LICENCES

(January 1974)

	Within T.F.L.'s		*Outside T.F.L.'s*		*Total*	
	number	*acres*	*number*	*acres*	*number*	*acres*
Timber Licences	1,222	590,999.12	997	512,144.39	2,219	1,103,143.51
Timber Berths	5	3,787.80	100	160,649.45	105	164,437.25
Timber Leases	71	81,847.80	24	24,870.64	95	106,718.44
Pulp Licences	165	72,723.18	56	30,541.00	221	103,264.18
Pulp Leases	18	195,792.92	15	104,821.19	33	300,614.11
Total	1,481	945,150.82	1,192	833,026.67	2,673	1,778,177.49

Source: B.C. Forest Service.



Tree Farm Licences is considerably higher (about 63% of the total acreage).

The harvesting of old temporary tenures both within and without Tree Farm Licences must be carried out according to the Forest Service's logging guidelines which apply to all operations on Crown land. These guidelines are designed for protection of the environment, for accommodation of other forest uses, and for fire prevention and reforestation. In addition all operations within Tree Farm Licences must proceed according to 5-year working plans and more

detailed short-term logging plans approved by the Forest Service. In seeking these approvals, Tree Farm Licence holders normally submit inventory data on their old temporary tenures, even though this information is not used for royalty assessment purposes. Old tenures outside Tree Farm Licences are not subject to the same rigorous control, and while the Chief Forester may demand a logging plan, inventory information is not usually submitted in detail.

As the forest industry of the Province has evolved and become concentrated into fewer, larger and more vertically integrated corporations, the holdings of old temporary tenures has become highly concentrated in the hands of a few companies. Today, about 80 per cent of the total acreage is held by only 5 firms and their subsidiaries.

ROYALTY AND APPRAISED VALUE

We have already noted the governments' frequent adjustments to royalty rates in an attempt to respond to changing values of timber through time. The upper graph in the accompanying figure illustrates, by way of example, the changes in royalties applied to three of the more important categories of timber in the Vancouver Forest District over the last four decades.

We have referred, also, to the government's intent to approximate the value of standing timber in setting royalty rates on Crown timber. The lower graph in the accompanying figure provides a rough indication of the government's success in pursuing this objective, by tracing over the period the royalty rates applied to major species as a percentage of the corresponding average appraised stumpage prices of other Crown timber in the Vancouver Forest District. This representation is faulty insofar as royalty-bearing timber is likely to be of greater value than timber which bears appraised stumpage charges and the relation between the two may not be constant through time.

However the lower graph does indicate considerable fluctuations in the relationship between royalty charges and appraised stumpage prices over the years. A comparison of the upper and lower parts of the figure suggest that these fluctuations are attributable less to the occasional changes in statutory royalties than to changes in timber values. Thus the curves in the lower figure reach a peak in

the depths of the Great Depression, then fall in spite of upward revisions in royalties as timber values rise thereafter. The substantial upward revisions in royalty rates in 1968 reversed that trend only slightly. Throughout, royalty charges have, of course, been held well below average appraised timber values. Since statutory royalties permit no variation around the average (as does appraised stumpage) royalty rates in the order of average appraised values would have left harvesting of much of the royalty-bearing timber uneconomic.

Implementation of our recommended change in royalty assessments would have the effect of bringing royalty charges into a constant relationship to appraised stumpage values, except to the extent that the value of timber on old temporary tenures changes relative to that on other Crown lands.

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